

# *A Phase-Locked Mechanical Resonator Pair and Its Application in Micromachined Vibration Gyroscope*

## **Abstract**

This invention is related to a phase-locked mechanical resonator pair that comprises at least two mechanical resonators wherein the resonance of the second mechanical resonator is phase-locked to the resonance of the first mechanical, and a micromachined vibration gyroscope that uses such phase-locked mechanical resonator pair as its resonating masses to generate differential Coriolis forces and to achieve inertial cancellation.